AMENDMENTS TO THE CLAIMS

Claims 1-12 (Cancelled)

13. (New) A glass particle deposited body manufacturing method for manufacturing a glass particle deposited body, in which a plurality of glass particle synthesizing burners are arranged at regular intervals to be opposed to a rotating starting rod, comprising the steps of:

relatively reciprocating said starting rod and said glass particle synthesizing burners in parallel in such a manner that a turn-back location from a homeward path to an outward path does not go beyond the initial position to move a turn-back location from an outward path to a homeward path of reciprocating movement in a certain direction, and move said turn-back location in the reverse direction if said turn-back location from an outward path to a homeward path is moved to a predetermined position, until each burner is returned to an initial position, which operation is defined as one set of operation, sequentially these operations being repeated so that glass particles synthesized by burners are deposited sequentially on a surface of the starting rod,

with reciprocating movement of outward path of (B + 1) x A and homeward path of B x A, (A: movement distance at once at a turn-back location, B: integer (1, 2, 3, . . .)), and reciprocating movement of outward path of (B + 1) x A and homeward path of (B + 2) x A in reverse direction after the turn-back location moves to the predetermined position, and

with an average reciprocating movement distance D = 2 x (B+1) x A of said one set being less than double a burner-to-burner interval,

setting the number of deposited layers on a stationary portion to be uniform along a

length direction at the time when each burner of said one set returns to the initial position.

14. (New) A glass particle deposited body manufacturing method for manufacturing a glass particle deposited body, in which a plurality of glass particle synthesizing burners are arranged at regular intervals to be opposed to a rotating starting rod, comprising the steps of:

relatively reciprocating said starting rod and said glass particle synthesizing burners in parallel in such a manner that a turn-back location from a homeward path to an outward path does not go beyond the initial position to move a turn-back location from an outward path to a homeward path of reciprocating movement in a certain direction, and move said turn-back location in the reverse direction if said turn-back location from an outward path to a homeward path is moved to a predetermined position, until each burner is returned to an initial position, which operation is defined as one set of operation, sequentially these operations being repeated so that glass particles synthesized by burners are deposited sequentially on a surface of the starting rod,

with a series of reciprocating including repeating reciprocating movement of outward path of $(B + 1) \times A$ and homeward path of $B \times A$, (A: movement distance at once at a turn-back location, B: integer (1, 2, 3, . . .)), and returning to the initial location in a next movement after the turn-back location moves to the predetermined position being defined as one set, and

with an average reciprocating movement distance $D = 2 \times (B+1) \times A$ of said one set being less than double a burner-to-burner interval,

setting the number of deposited layers on a stationary portion to be uniform along a length direction at the time when each burner of said one set returns to the initial position.

15. (New) A glass particle deposited body manufacturing method for manufacturing a glass particle deposited body, in which a plurality of glass particle synthesizing burners are arranged at regular intervals to be opposed to a rotating starting rod, comprising the steps of:

relatively reciprocating said starting rod and said glass particle synthesizing burners in parallel in such a manner that a turn-back location from a homeward path to an outward path does not go beyond the initial position to move a turn-back location from an outward path to a homeward path of reciprocating movement in a certain direction, and move said turn-back location in the reverse direction if said turn-back location from an outward path to a homeward path is moved to a predetermined position, until each burner is returned to an initial position, which operation is defined as one set of operation, sequentially these operations being repeated so that glass particles synthesized by burners are deposited sequentially on a surface of the starting rod,

with a series of reciprocating including a first movement of moving to the predetermined position, and then repeating reciprocating movement of homeward path of (B + 1) x A and outward path of B x A, (A: movement distance at once at a turn-back location, B: integer (1, 2, 3, . . .)), and returning to the initial location being defined as one set, and

with an average reciprocating movement distance D = 2 x (B+1) x A of said one set being less than double a burner-to-burner interval,

setting the number of deposited layers on a stationary portion to be uniform in the reciprocating movement at the time when each burner of said one set returns to the initial position.

16. (New) A glass particle deposited body manufacturing method for manufacturing a glass particle deposited body, in which a plurality of glass particle synthesizing burners are arranged at regular intervals to be opposed to a rotating starting rod, comprising the steps of:

relatively reciprocating said starting rod and said glass particle synthesizing burners in parallel in such a manner that a turn-back location from a homeward path to an outward path does not go beyond the initial position to move a turn-back location from an outward path to a homeward path of reciprocating movement in a certain direction, and move said turn-back location in the reverse direction if said turn-back location from an outward path to a homeward path is moved to a predetermined position, until each burner is returned to an initial position, which operation is defined as one set of operation, sequentially these operations being repeated so that glass particles synthesized by burners are deposited sequentially on a surface of the starting rod,

with a series of reciprocating including repeating reciprocating movement of outward path of (B + 1) x A and homeward path of B x A, (A: movement distance at once at a turn-back location, B: integer (1, 2, 3, . . .)), and returning to a position shorter than a burner-to-burner interval by A and returning to the initial position by a next movement being defined as one set, and

with an average reciprocating movement distance D = 2 x (B+1) x A of said one set being less than double a burner-to-burner interval,

setting the number of deposited layers on a stationary portion to be uniform along a length direction at the time when each burner of said one set returns to the initial position.

17. (New) A glass particle deposited body manufacturing method for manufacturing a glass particle deposited body, in which a plurality of glass particle synthesizing burners are arranged at regular intervals to be opposed to a rotating starting rod, comprising the steps of:

relatively reciprocating said starting rod and said glass particle synthesizing burners in parallel in such a manner that a turn-back location from a homeward path to an outward path does not go beyond the initial position to move a turn-back location from an outward path to a homeward path of reciprocating movement in a certain direction, and move said turn-back location in the reverse direction if said turn-back location from an outward path to a homeward path is moved to a predetermined position, until each burner is returned to an initial position, which operation is defined as one set of operation, sequentially these operations being repeated so that glass particles synthesized by burners are deposited sequentially on a surface of the starting rod,

with a series of reciprocating including a first movement of moving to the predetermined position, and then repeating reciprocating movement of homeward path of (B + 1) x A and outward path of B x A, (A: movement distance at once at a turn-back location, B: integer (1, 2, 3, . . .)) being defined as one set, and

with an average reciprocating movement distance D = 2 x (B+1) x A of said one set being less than double a burner-to-burner interval,

setting the number of deposited layers on a stationary portion to be uniform along a length direction at the time when each burner of said one set returns to the initial position

18. (New) The glass particle deposited body manufacturing method according to claim 13, wherein

said turn-back location of reciprocating movement has a movement range of about n (n is an integer from 1 to 3) times the burner interval.

19. (New) The glass particle deposited body manufacturing method according to claim 14, wherein

said turn-back location of reciprocating movement has a movement range of about n (n is an integer from 1 to 3) times the burner interval shorter by the minimum movement distance of the turn-back location in the one set of operation.

20. (New) The glass particle deposited body manufacturing method according to claim 15, wherein

said turn-back location of reciprocating movement has a movement range of about n (n is an integer from 1 to 3) times the burner interval shorter by the minimum movement distance of the turn-back location in the one set of operation.

21. (New) The glass particle deposited body manufacturing method according to claim 16, wherein

said turn-back location of reciprocating movement has a movement range of about n (n is an integer from 1 to 3) times the burner interval shorter by the minimum movement distance of the turn-back location in the one set of operation.

22. (New) The glass particle deposited body manufacturing method according to claim 17, wherein

said turn-back location of reciprocating movement has a movement range of about n (n is an integer from 1 to 3) times the burner interval shorter by the minimum movement distance of the turn-back location in the one set of operation.

23. (New) The glass particle deposited body manufacturing method according to claim 13, wherein

the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is about one-(m+1)th (m is a natural number) the burner interval.

24. (New) The glass particle deposited body manufacturing method according to claim 14, wherein

the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is about one-(m+1)th (m is a natural number) the burner interval.

25. (New) The glass particle deposited body manufacturing method according to claim 15, wherein

the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is about one-(m+1)th (m is a natural number) the burner interval.

26. (New) The glass particle deposited body manufacturing method according to claim 16, wherein

the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is about one-(m+1)th (m is a natural number) the burner interval.

27. (New) The glass particle deposited body manufacturing method according to claim 17, wherein

the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is about one-(m+1)th (m is a natural number) the burner interval.

28. (New) The glass particle deposited body manufacturing method according to claim 23, wherein

assuming the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is Amm, and the average reciprocating movement distance in said one set of operation is Dmm, A falls within a range of 5 to 60mm, and D falls within a range of $4xA \leq D \leq 240$.

29. (New) The glass particle deposited body manufacturing method according to claim 24, wherein

assuming the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is Amm, and the average reciprocating

movement distance in said one set of operation is Dmm, A falls within a range of 5 to 60mm, and D falls within a range of $4xA \leq D \leq 240$.

30. (New) The glass particle deposited body manufacturing method according to claim 25, wherein

assuming the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is Amm, and the average reciprocating movement distance in said one set of operation is Dmm, A falls within a range of 5 to 60mm, and D falls within a range of $4xA \leq D \leq 240$.

31. (New) The glass particle deposited body manufacturing method according to claim 26, wherein

assuming the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is Amm, and the average reciprocating movement distance in said one set of operation is Dmm, A falls within a range of 5 to 60mm, and D falls within a range of $4xA \leq D \leq 240$.

32. (New) The glass particle deposited body manufacturing method according to claim 27, wherein

assuming the average movement distance of said turn-back location of reciprocating movement each time in said one set of operation is Amm, and the average reciprocating movement distance in said one set of operation is Dmm, A falls within a range of 5 to 60mm, and D falls within a range of $4xA \leq D \leq 240$.

33. (New) The glass particle deposited body manufacturing method according to claim 13, wherein

the reciprocating movement speed at which a target deposition amount of glass particles is achieved at said glass particle deposition end time is decided from the relationship between the reciprocating movement speed and the weight of glass particles deposited by the glass particle deposition end time, and said target deposition amount is achieved at said glass particle deposition end time by depositing glass particles at said decided speed.

34. (New) The glass particle deposited body manufacturing method according to claim 14, wherein

the reciprocating movement speed at which a target deposition amount of glass particles is achieved at said glass particle deposition end time is decided from the relationship between the reciprocating movement speed and the weight of glass particles deposited by the glass particle deposition end time, and said target deposition amount is achieved at said glass particle deposition end time by depositing glass particles at said decided speed.

35. (New) The glass particle deposited body manufacturing method according to claim 15, wherein

the reciprocating movement speed at which a target deposition amount of glass particles is achieved at said glass particle deposition end time is decided from the relationship between the reciprocating movement speed and the weight of glass particles deposited by the glass particle deposition end time, and said target deposition amount is achieved at said glass particle deposition end time by depositing glass particles at said decided speed.

36. (New) The glass particle deposited body manufacturing method according to claim 16, wherein

the reciprocating movement speed at which a target deposition amount of glass particles is achieved at said glass particle deposition end time is decided from the relationship between the reciprocating movement speed and the weight of glass particles deposited by the glass particle deposition end time, and said target deposition amount is achieved at said glass particle deposition end time by depositing glass particles at said decided speed.

37. (New) The glass particle deposited body manufacturing method according to claim 17, wherein

the reciprocating movement speed at which a target deposition amount of glass particles is achieved at said glass particle deposition end time is decided from the relationship between the reciprocating movement speed and the weight of glass particles deposited by the glass particle deposition end time, and said target deposition amount is achieved at said glass particle deposition end time by depositing glass particles at said decided speed.

38. (New) A glass parent material manufacturing method for manufacturing a glass parent material, comprising the steps of:

producing a glass particle deposited body by the glass particle deposited body manufacturing method according to claim 13, and

heating and vitrifying said produced glass particle deposited body to manufacture the glass parent material.

39. (New) A glass parent material manufacturing method for manufacturing a glass parent material, comprising the steps of:

producing a glass particle deposited body by the glass particle deposited body manufacturing method according to claim 14, and

heating and vitrifying said produced glass particle deposited body to manufacture the glass parent material.

40. (New) A glass parent material manufacturing method for manufacturing a glass parent material, comprising the steps of:

producing a glass particle deposited body by the glass particle deposited body manufacturing method according to claim 15, and

heating and vitrifying said produced glass particle deposited body to manufacture the glass parent material.

41. (New) A glass parent material manufacturing method for manufacturing a glass parent material, comprising the steps of:

producing a glass particle deposited body by the glass particle deposited body manufacturing method according to claim 16, and

heating and vitrifying said produced glass particle deposited body to manufacture the glass parent material.

42. (New) A glass parent material manufacturing method for manufacturing a glass parent material, comprising the steps of:

producing a glass particle deposited body by the glass particle deposited body manufacturing method according to claim 17, and

heating and vitrifying said produced glass particle deposited body to manufacture the glass parent material.